INSTRUCTIONS-PARTS LIST 308864

Rev. F

This manual contains important warnings and information.
READ AND KEEP FOR REFERENCE.

INSTRUCTIONS

GRACO

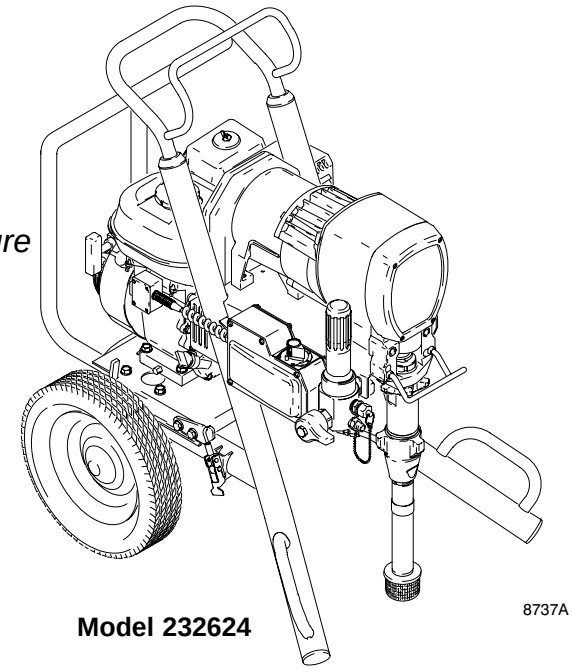
First choice when quality counts.™

5.5 HORSEPOWER, GASOLINE POWERED

GMAX 5900 Convertible Airless Paint Sprayer

3300 psi (227 bar, 22.7 MPa) Maximum Working Pressure

Model	Series	Description
232624	A	Sprayer, gas powered
232625	A	Sprayer, gas powered, with RAC™ 5 tip, gun and hose
232626	A	Sprayer, gas powered, with electric motor kit
232629	A	Same as 232626 except with ETL approval to CSA and UL standards
232680	A	Sprayer, gas powered, with Lo-Boy suction set kit
232681	A	Sprayer, gas powered, with RAC 5 tip, gun and hose and Lo-Boy suction set kit
232682	A	Sprayer, gas powered, with Lo-Boy suction set kit and electric motor kit
240774	A	Electric motor kit converts sprayer to electric powered sprayer.
240775	A	Same as 240774 except with ETL approval to CSA and UL standards



8737A

Model 232624

Related Manuals

Operator 308863
Displacement Pump 308798
Spray Gun 309091
Spray Tip 309055
PC Board 308919
Electric Motor Kit 308920
Drain Valve Kit 308961

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Warnings and Cautions

Warning Symbol

⚠ WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol

⚠ CAUTION

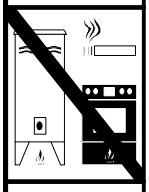
This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

⚠ WARNING

Fire and explosion can occur when spraying or flushing flammable fluid in an area where air circulation is poor and flammable vapors can be ignited by an open flame or sparks.

To help prevent a fire and explosion:

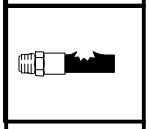
- **Use outdoors or in an extremely well ventilated area.**
- Do not use 1,1,1–trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use could result in a chemical reaction, with the possibility of explosion.
- Remove, extinguish or unplug all ignition sources; tape wall switch. Do not smoke in spray area.
- Never fill fuel tank while the engine is running or hot.
- Ground Sprayer, object being sprayed, paint and solvent pails.
- Hold gun firmly to side of a grounded pail when triggering into pail.
- Use only conductive airless paint hose.
- Never run engine in inclosed area.



Fluid injection is a serious injury! If high pressure fluid pierces your skin, the injury might look like “just a cut”. But it is a serious wound! Get immediate medical attention.

To help prevent injection, always:

- Engage trigger safety latch when not spraying.
- Point gun away from yourself or anyone else.
- Relieve pressure before checking or repairing any leak.
- Relieve pressure when you turn off the sprayer or stop spraying.
- Do not use components rated less than system *Maximum Working Pressure*



Never allow children to use this unit. If you are injured using this equipment, get immediate medical treatment.

Component Identification and Function

202 Main hose
203 Whip end hose
204 Contractor gun with RAC 5 DripLess tip guard and 517 size SwitchTip

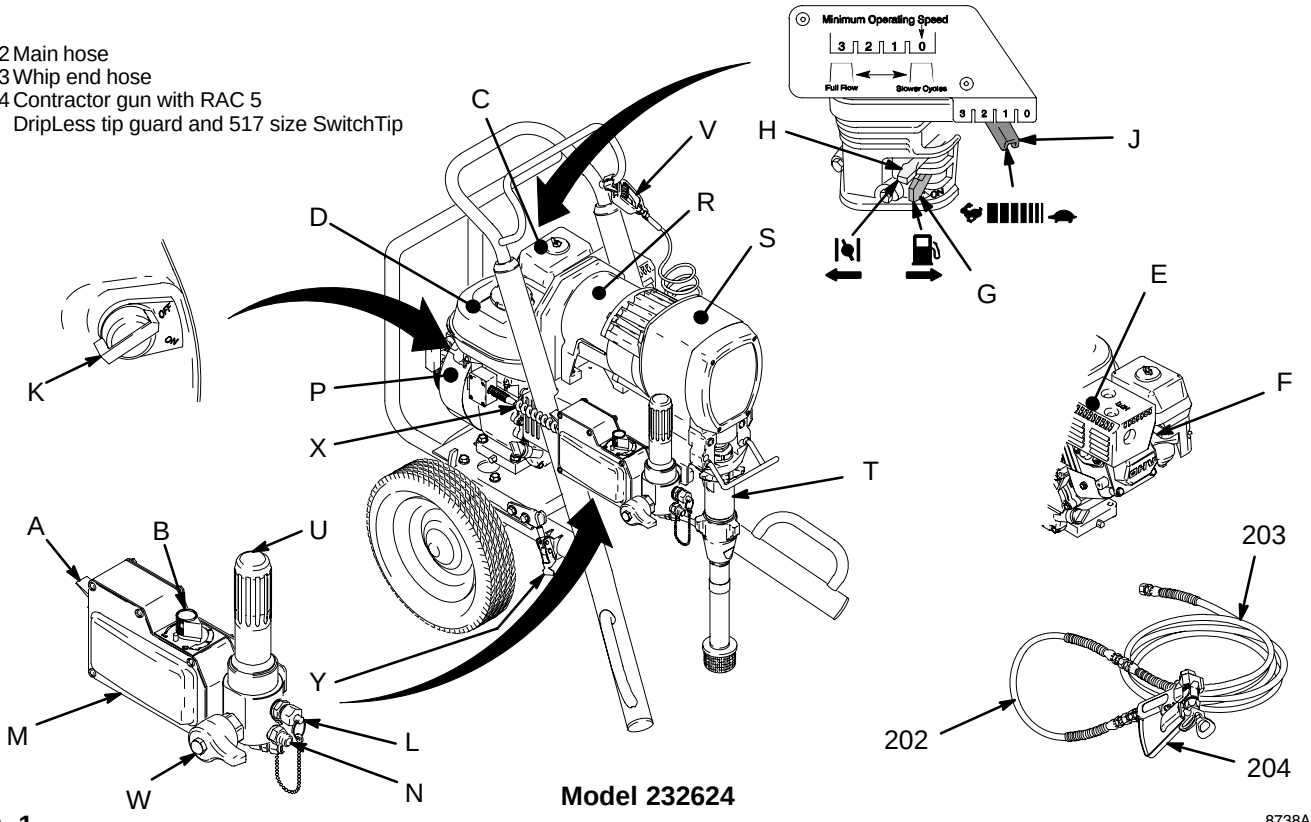


Fig. 1

A	Pressure Control Switch	ON/OFF, enables/disables clutch function
B	Pressure Adjusting Knob	Controls fluid outlet pressure
C	Air Cleaner*	Filters air entering carburetor
D	Fuel Tank*	Holds 0.95 gallons (3.6 liter) of 86 octane gasoline
E	Muffler*	Reduces noise of internal combustion
F	Spark Plug Cable*	Routes electrical current to spark plug
G	Fuel Shutoff Lever*	On/off lever to regulate fuel flow from gasoline tank to carburetor
H	Choke*	Enriches air/gasoline mixture for cold starting
J	Throttle Lever*	Adjusts engine speed for large or small orifice spray tips
K	Engine Switch*	Enables/disables engine operation
L	Secondary Fluid Outlet	Second hose and spray gun is connected here
M	Pressure Control	Controls clutch cycling to maintain fluid pressure
N	Primary Fluid Outlet	Hose and spray gun is connected here
P	Engine*	5.5 HP gasoline engine
R	Clutch Housing	Transfers power from engine to drive assembly
S	Drive Housing	Transfers power from clutch to displacement pump
T	Displacement Pump	Provides fluid to be sprayed through spray gun
U	Fluid Filter	Filters fluid between source and spray gun
V	Grounding Clamp and Wire	Grounds sprayer system
W	Pressure Drain Valve	Relieves fluid pressure when open
X	Cord	Provides electric power from engine alienator to control and clutch
Y	Clamp	Locks down engine/motor and provides belt tension
*	For more detailed explanations of these controls, refer to Honda engine manual; supplied	

Maintenance

⚠ WARNING

INJECTION HAZARD
System pressure must be manually relieved to prevent system from starting or spraying accidentally. Fluid under high pressure can be injected through skin and cause serious injury. To reduce risk of injury from injection, splashing fluid, or moving parts, follow **Pressure Relief Procedure** whenever you:

- are instructed to relieve pressure,
- stop spraying,
- check or service any system equipment,
- or install or clean spray tip.

Pressure Relief Procedure

1. Lock gun safety latch.
2. Turn engine or electric motor ON/OFF switch to OFF.
3. Unplug power supply cord (electric motor).
4. Move pressure control switch to OFF and turn pressure control knob fully counterclockwise.
5. Rotate RAC 5 tip, if used, to reverse position.
6. Unlock gun safety latch. Hold metal part of gun firmly to grounded metal pail. Trigger gun to relieve pressure.
7. Lock gun safety latch.
8. Open pressure drain valve. Leave pressure drain valve open until ready to spray again.

If suspected that spray tip or hose is completely clogged, or that pressure has not been fully relieved after following steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Now clear tip or hose obstruction.

⚠ CAUTION

For detailed engine maintenance and specifications, refer to separate engine manual, supplied.

DAILY: Check engine oil level and fill as necessary. Manual 308863.

DAILY: Check that V-belt (60) is centered on pulleys and is not inverted. Replace if worn or damaged.

DAILY: Check and fill gas tank.

DAILY: Check hoses for wear and damage.

DAILY: Check gun safety for proper operation.

DAILY: Check pressure drain valve for proper operation.

AFTER THE FIRST 20 HOURS OF OPERATION AND EACH 100 HOURS THEREAFTER: Change engine oil.

DAILY: Keep TSL in packing nut to help lubricate pump packings. One full squirt of TSL is usually enough.

WEEKLY: Remove cover of air filter (C) and clean element. Replace element, if necessary. If operating in an unusually dusty environment, check filter daily and replace it, if necessary.

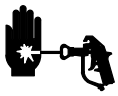
Repack connecting rod (22) top needle bearing after every pump change.

Replacement elements can be purchased from your local HONDA dealer.

SPARK PLUG: Use only an BPR6ES (NGK) or W20EPR–U (NIPPONDENSO) plug. Gap plug to 0.028 to 0.031 in. (0.7 to 0.8 mm). Use a spark plug wrench when installing and removing plug.

Troubleshooting

⚠ WARNING



INJECTION HAZARD
To reduce risk of serious injury, including fluid injection or splashing in eyes or on skin, or injury from moving parts, always follow **Pressure Relief Procedure Warning**, page 4, before checking, adjusting, cleaning or shutting down sprayer.

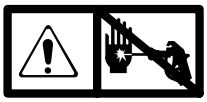
Check everything in chart before disassembling sprayer.

PROBLEM	CAUSE	SOLUTION
Engine won't start	Engine switch is OFF	Turn engine switch on.
	Engine is out of gas	Refill gas tank. Honda Engines Owner's Manual.
	Engine oil level low	Try to start engine. Replenish oil, if necessary. Honda Engines Owner's Manual.
	Spark plug cable disconnected or spark plug damaged	Connect spark plug cable or replace spark plug.
	Oil seepage into combustion chamber	Remove spark plug. Pull starter rope 3 or 4 times. Clean or replace spark plug. Try to start engine. Keep sprayer upright to avoid oil seepage.
Engine operates, but displacement pump doesn't	Pressure control switch turned OFF	Turn on.
	Pressure setting too low	Increase pressure.
	Displacement pump outlet filter dirty	Clean filter.
	Tip or tip filter clogged	Clean tip or tip filter.
	Broken drive belt	Replace belt.
	Displacement pump rod seized by dry paint	Service pump. See page 14.
	Connecting rod worn or damaged	Replace. See page 7.
	Drive housing worn or damaged	Replace. See page 8.
	Electrical power not energizing clutch field	Check wiring connections. See page 20. Reference control board diagnostics. See page 13. With pressure control switch ON and pressure turned to MAXIMUM, use a test light to check for power between clutch terminals on control board. Remove black clutch wires from control board and measure resistance across wires. At 70° F, the resistance must be between 1.7 ±0.2Ω; if not, replace pinion housing. Have pressure control checked by authorized Graco dealer.
	Clutch worn or damaged	Service. See page 9.
	Pinion assembly worn or damaged	Service. See page 9.

PROBLEM	CAUSE	SOLUTION
Pump output low	Strainer (31) clogged	Clean.
	Piston ball (25) not seating	Service piston ball check. Manual 308798.
	Piston packings worn or damaged	Replace packings. Manual 308798.
	O-ring (227) in displacement pump is worn or damaged	Replace o-ring. Manual 308798.
	Intake valve ball not seating properly	Clean and service. Manual 308798.
	Engine speed is too low	Increase throttle setting. See Manual 308863.
	V–belt slipping	Tighten V–belt with clamp (101). Adjust clamp until it takes 15 lb of force to lock clamp down.
	Clutch worn or damaged	Replace. See page 9.
	Pressure setting is too low	Increase pressure. Manual 308863.
	Fluid filter (318), tip filter or tip is clogged or dirty	Clean filter. Manual 308863 or 309091.
	Large pressure drop in hose with heavy materials	Use larger diameter hose and/or reduce overall length of hose. Use of more than 100 ft of 1/4 in. hose significantly reduces performance of sprayer. Use 3/8 in. hose for optimum performance (50 ft minimum).
Excessive paint leakage into throat packing nut	Throat packing nut is loose	Remove throat packing nut spacer. Tighten throat packing nut just enough to stop leakage.
	Throat packings worn or damaged	Replace packings. Manual 308798.
	Displacement rod worn or damaged	Replace rod. Manual 308798.
Spitting from gun	Air in fluid pump or hose	Check for loose connections at pump intake and tighten. Then prime pump. See **Startup**, Manual 308863.
	Tip partially clogged	Clear.
	Fluid supply is low or empty	Refill and prime pump. See **Startup**, Manual 308863. Check fluid supply often to prevent running pump dry.
Pump is difficult to prime	Air leak	Check all hose connections and tighten as needed. Reduce engine speed and cycle pump as slowly as possible during priming.
	Intake valve is leaking	Shut off pump and relieve pressure. Disassemble and clean intake valve. Be sure ball seat is not nicked or worn and that ball seats well. Reassemble.
	Worn packings	Repack pump. Manual 308798.
	Fluid is too thick	Thin fluid according to supplier's recommendations.
	Engine speed is too high	Decrease throttle setting before priming pump. Manual 308863.
High engine speed at no load	Misadjusted throttle setting.	Reset engine throttle to 3600 – 3800 rpm at no load
	Worn engine governor	Replace or service engine governor
Clutch squeaks each time clutch engages	Clutch surfaces are not matched to each other when new and may cause noise	Clutch surfaces need to wear into each other. Noise will dissipate after a day of run time

Bearing Housing and Connecting Rod

Removal

1.  Relieve pressure**;** page 4.

2. Stop sprayer at bottom of stroke to get crank (E) in lowest position.To lower crank manually, remove spark plug and carefully rotate crank by pulling starter rope.

3. Fig. 3. Remove front cover (13). Unclip drain hose (108) from pump. Unscrew pump suction tube (107) from pump. Disconnect pump hose (47).

4. Push up retaining spring (18). Push pin (19) out rear.

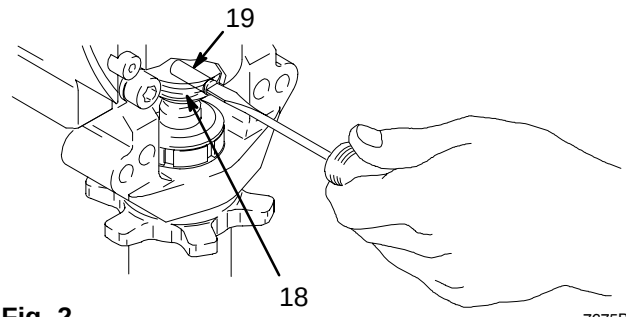


Fig. 2 7675B

5. Loosen locknut (20). Unscrew displacement pump (21).

6. Remove four screws and lockwashers (44, 45).

7. Tap lower rear of bearing housing (17) with a plastic mallet to loosen from drive housing (12). Pull bearing housing and connecting rod assembly (14) straight off drive housing.

8. Remove pail hanger (59) and install it on new bearing housing.

9. Inspect crank (E) for excessive wear and replace parts as needed.

Installation

1. Evenly lubricate inside of bronze bearing (B) in bearing housing (17) with high-quality motor oil. Liberally pack top roller bearing (C), lower bearing (D) inside connecting rod assembly (14) with bearing grease 114819.

2. Assemble connecting rod (14) and bearing housing (17).

3. Clean mating surfaces of bearing and drive housings (17, 12).

4. Align connecting rod (14) with crank (E) and drive housing locating pins (12b) with bearing housing (17) holes. Push bearing housing onto drive housing or tap into place with plastic mallet.

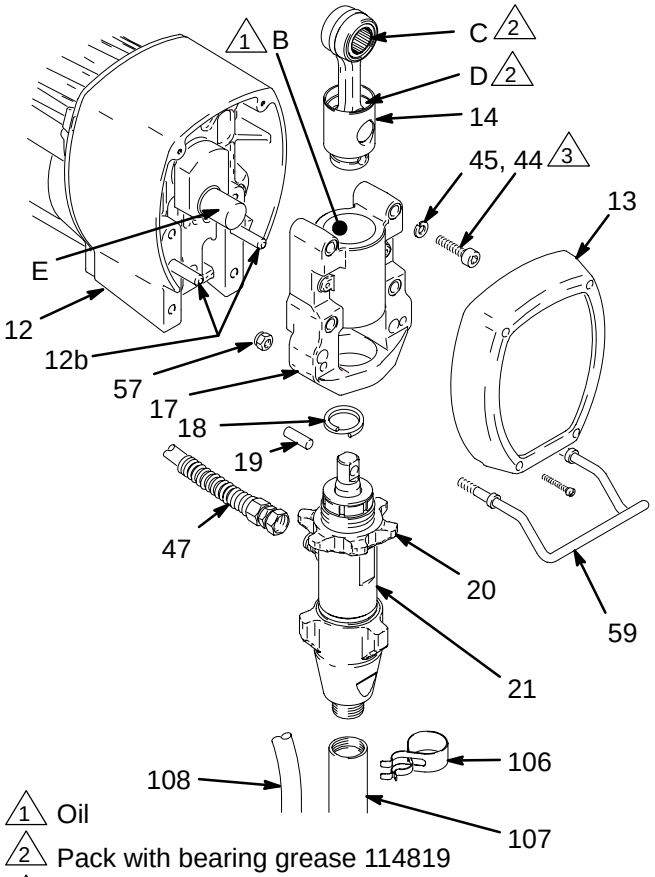
⚠ CAUTION

Do not use bearing housing screws (44) to align or seat bearing housing; this may cause bearing and drive housing misalignment and result in premature bearing wear.

5. Install screws and lockwashers (44, 45). Tighten screws evenly to 25 ft-lb (34 N·m).

6. Install pump; page 14.

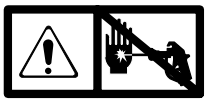
7. Fig. 3. Install remaining parts.



1 Oil
2 Pack with bearing grease 114819
3 Torque to 25 ft-lb (34 N·m)

Fig. 3 8697A

Drive Housing

1.  Relieve pressure**;** page 4.

Removal

2. Fig. 4. Remove bearing housing. Do **Removal** of **Bearing Housing and Connecting Rod** procedure on page 7.

3. Remove two screws (41) and lockwashers (10).

4. Remove four screws (9) and lockwashers (10) from pinion housing (8).

5. Lightly tap around drive housing (12) to loosen drive housing. Pull drive housing straight off pinion housing (8). Be prepared to support gear cluster (7) which may also come out.

⚠ CAUTION

Do not drop gear cluster (7) when removing drive housing (12). Gear cluster is easily damaged. Gear may stay engaged in drive housing or pinion housing.

Installation

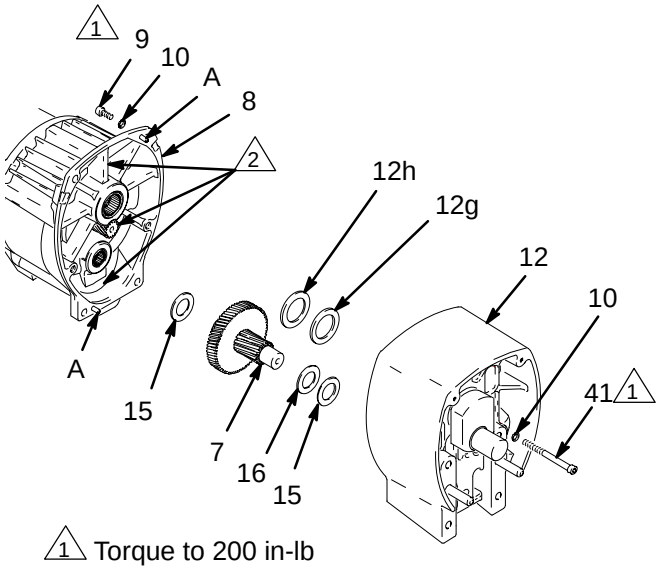
1. Liberally apply bearing grease (supplied with replacement gear cluster) to gear cluster (18) and to areas called out by note 2. Use full 0.68 pint (0.32 liter) of grease.

2. Place bronze colored washer (12g) on shaft protruding from large shaft of drive housing (12). Note: If replacing a washer with pin holes with a washer without pin holes, remove guide pins from housing. Place silver colored washer (12h) on pinion housing. Assemble washers (15) and (16) onto gear (7). Align gears and push new drive housing straight onto pinion housing and locating pins (A).

3. Install four screws (9) and lockwashers (10) to pinion housing (8) and drive housing (12).

4. Install two screws (41) and lockwashers (10) to drive housing (12).

5. Fig. 4. Install bearing housing. Do 1. through 6. of **Bearing Housing and Connecting Rod** procedure on page 7.



1 Torque to 200 in-lb

2 Apply remaining grease to these areas

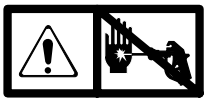
TI0178B

Fig. 4

Pinion Assembly/Rotor/Shaft/Clutch/Pulley

Removal

If pinion assembly (8) is not removed from clutch housing (3), do 1. through 4. Otherwise, do 1 and then start at 5.

1.  Relieve pressure**;** page 4.

2. Disconnect field cable (X) from pressure control.

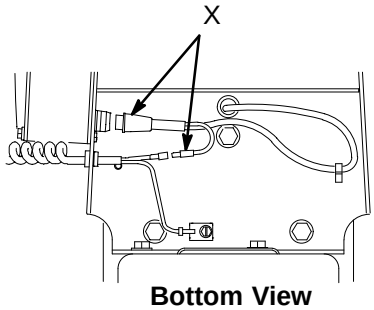


Fig. 5 **Bottom View** 8739A

3. Fig. 6. Remove five screws (5) and lockwashers (6) and pinion assembly (8).

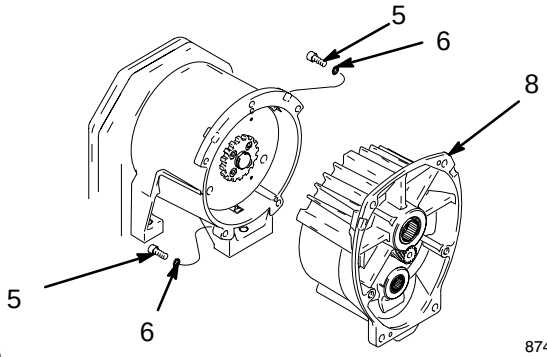


Fig. 6 8740A

4. Fig. 7. Place pinion assembly (8) on bench with rotor side up.

5. Remove four screws (39) and lockwashers (6). Install two screws in threaded holes (E) in rotor. Alternately tighten screws until rotor comes off.

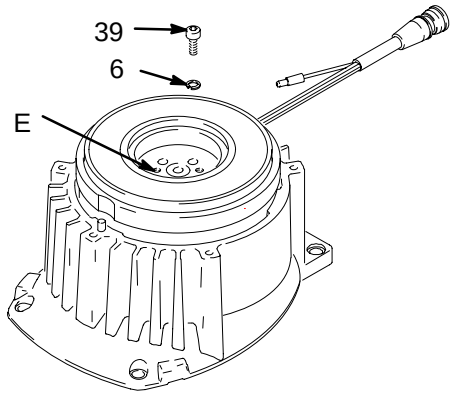


Fig. 7 8701A

6. Fig. 8. Remove retaining ring (Z).

7. Tap pinion shaft (A) out with plastic mallet.

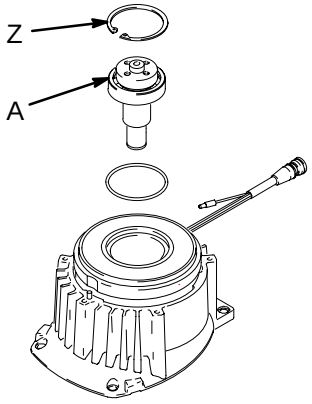


Fig. 8 8703A

8. Fig. 10. Remove drive belt shield (74) and belt (68).

9. Hold pulley (2) and remove four screws (3a) and washers (3h) from hub (3d). Remove armature (3g) and spacer (3f).

10. Remove set screw (112a) from bushing (112). Remove three bolts (112b) and three washers (112c). Use bolts to remove pulley from bushing. Remove pulley and key (1).

11. Remove three screws (27) from beneath mounting plate (D).

12. Lift off clutch housing (3).

13. Remove retaining ring (3b). Pull jack shaft assembly (3c) out.

Pinion Assembly/Rotor/Shaft/Clutch/Pulley

Installation

1. Fig. 10. Install jack shaft assembly (3c). Install retaining ring (3b).
2. Fig. 9. Lay two stacks of two dimes on smooth bench surface.
3. Lay armature (4a) on two stacks of dimes.
4. Press center of clutch down on bench surface.

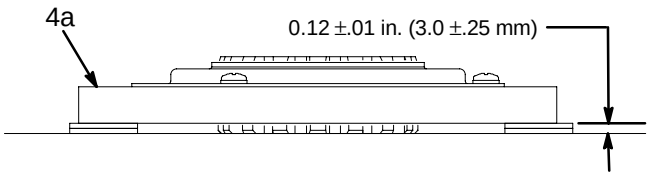


Fig. 9

5. Place spacer (3f) and armature (3d, 3g) on jack shaft assembly.
6. Install three screws (27) through mounting plate (D) and into clutch housing (3).
7. Insta to ll key (1) in bushing (112). Apply Locktite© to three bolts (112). Install bushing in pulley (2) with three bolts (112b). Install set screw (112a) in bushing. End of jackshaft (3c) must be 0.090 in. below flush with end of bushing.
8. Hold pulley (2) and install four screws (3a) and washers (3h) in hub (3d). Torque to 125 in-lb (14 N·m).
9. Install drive belt shield (74).
10. Push drive housing (12) and pinion housing (8) assembly onto clutch housing (3). Tap lightly on front of bearing housing (17) with a plastic mallet to push drive housing and pinion housing assembly onto clutch housing.
11. Install five screws (5) and lockwashers (6).
12. Fig. 8. Tap pinion shaft (A) in with plastic mallet.
13. Install retaining ring (Z).
14. Fig. 7. Place pinion assembly on bench with rotor side up.
15. Apply locktite to screws. Install four screws (39) and lockwashers (6). Alternately torque screws to 125 in-lb until rotor is secure.
16. Install pinion assembly with five screws (5) and lockwashers (6).
17. Fig. 5. Connect field cable (X) to pressure control.

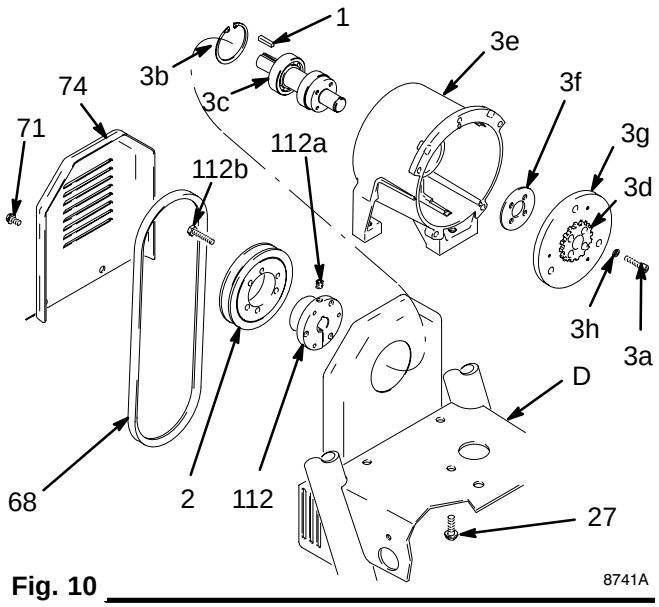
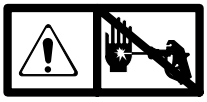


Fig. 10

On/Off Switch

Removal

1.  Relieve pressure; page 4.

2. Fig. 11. Remove five screws (307) and cover (322).

3. Disconnect two wires (A) from ON/OFF switch (309).

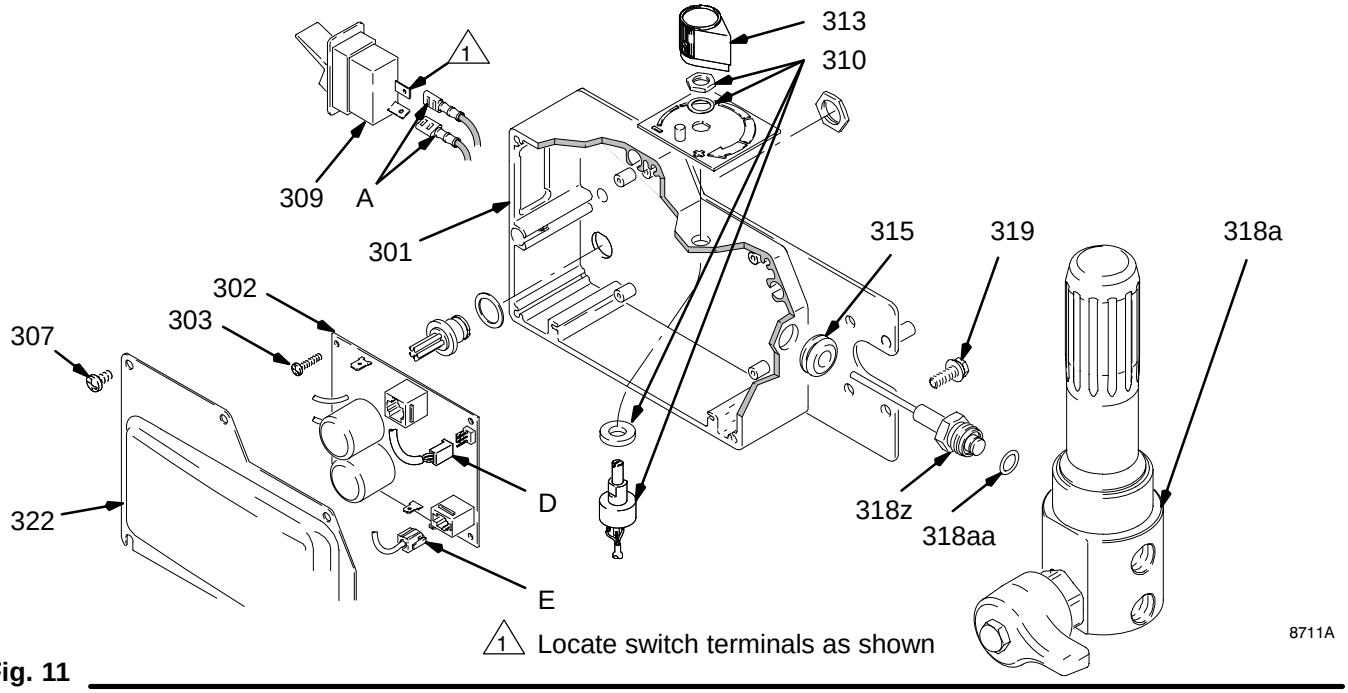
4. Press in on two retaining tabs on each side of ON/OFF switch (309) and remove.

Installation

1. Install new ON/OFF switch (309) so tabs of switch snap into place on inside of pressure control housing.

2. Connect two wires (A) to ON/OFF switch.

3. Install pressure control cover (322) with five screws (307).



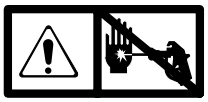
1 Locate switch terminals as shown

Fig. 11

Pressure Control

Control Board

Removal

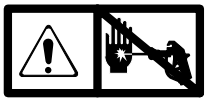
1.  Relieve pressure**;** page 4.
2. Fig. 11. Remove five screws (307) and cover (322).
3. Fig. 18. Disconnect at control board (302):
   - Four clutch leads: two violet and two black.
   - Lead (D) from potentiometer.
   - Lead (E) from transducer.
   - Two red leads (A) to ON/OFF switch (80).
4. Remove five screws (303), green ground wire and circuit board (302).

Installation

1. Fig. 11. Install control board (302) and green ground wire with five screws (303).
2. Connect to control board (302):
   - Two red leads (A) to ON/OFF switch (309).
   - Lead (E) to transducer.
   - Lead (D) to potentiometer.
   - Four clutch leads: two violet and two black.
3. Install cover (322) with five screws (307).

Pressure Control Transducer

Removal

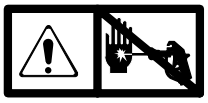
1.  Relieve pressure**;** page 4.
2. Fig. 11. Remove five screws (307) and cover (322).
3. Disconnect lead (E) from control board (302).
4. Remove three screws (319) and fluid filter (318) from control plate (301). Carefully pull transducer connector through rubber grommet (315).
5. Remove pressure control transducer (318z) and packing o-ring (318aa) from filter housing (318a).

Installation

1. Fig. 11. Install packing o-ring (318aa) and pressure control transducer (318z) in filter housing (318a). Torque to 30–35 ft-lb.
2. Carefully feed transducer connector through rubber grommet (315). Install fluid filter (318) on control plate (301) with three screws (319).
3. Connect lead (E) to control board (302).
4. Install cover (322) with five screws (307).

Pressure Adjust Potentiometer

Removal

1.  Relieve pressure**;** page 4.
2. Fig. 11. Remove five screws (307) and cover (322).
3. Disconnect lead (D) from control board (302).
4. Loosen set screws on potentiometer knob (313) and remove knob, shaft nut, lockwasher (310) and pressure adjust potentiometer (310).
5. Remove seal (311) from potentiometer (310).

Installation

1. Install seal (311) on potentiometer (310).
2. Fig. 11. Install pressure adjust potentiometer (310), shaft nut, lockwasher (310) and potentiometer knob (313).
   a. Turn potentiometer shaft (310) clockwise to internal stop. Assemble potentiometer knob (313) to strike pin on plate (312).
   b. After adjustment of step a., tighten both set screws in knob 1/4 to 3/8 turn after contact with shaft.
3. Connect lead (D) to control board (302).
4. Install cover (322) with five screws (307).

Pressure Control

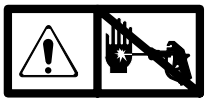
Control Board Diagnostics

1. Fig. 11. Remove five screws (307) and cover (322).
2. Start sprayer.
3. Turn ON/OFF switch ON.
4. Observe LED operation and reference following table:

LED BLINKS	SPRAYER OPERATION	INDICATES	WHAT TO DO
Two times repeatedly	Sprayer shuts down and LED continues to blink two times repeatedly	Run away pressure. Pressure greater than 4500 psi (310 bar, 31 MPa).	1. Check pressure transducer connection at control board 2. Replace pressure transducer 3. Replace control board
Three times repeatedly	Sprayer shuts down and LED continues to blink three times repeatedly	Pressure transducer is faulty or missing	1. Check pressure transducer connection at control board 2. Replace pressure transducer 3. Replace control board
Four times repeatedly	Sprayer shuts down and LED continues to blink four times repeatedly	Generator voltage is low	1. Increase engine throttle 2. Check wiring connections 3. Service Honda engine alternator
Five times repeatedly	Sprayer shuts down and LED continues to blink five times repeatedly	High clutch current	1. Check clutch 5-pin bulkhead connector. Clean contacts. 2. Measure 1.7 ±0.2Ω across clutch field at 70°F 3. Replace clutch field assembly
Six times repeatedly	Sprayer shuts down and LED continues to blink six times repeatedly	High clutch temperature	1. If clutch is new, let sprayer cool down and then restart 2. Inspect clutch. Replace clutch if there is excessive wear. 3. Remove pump pin, separate pinion housing from clutch housing. Rotate rotor clockwise to check for excessive drag.

Displacement Pump

Removal

1. Flush pump.
2.  Relieve pressure**;** page 4.
3. Fig. 12. Cycle pump with piston rod (222) in its lowest position.
4. Fig. 12. Remove suction tube (107) and hose (47).

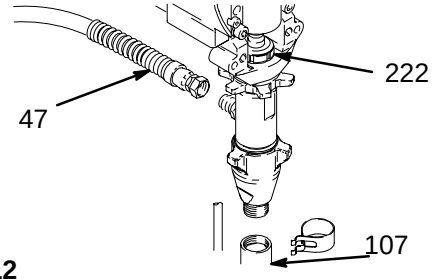


Fig. 12 7672B

5. Fig. 13. Use screwdriver: push retaining spring up and push out pin (19).

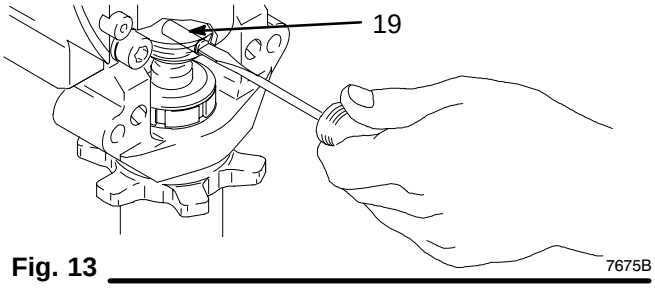


Fig. 13 7675B

6. Fig. 14. Loosen jam nut by hitting firmly with a 20 oz (maximum) hammer. Unscrew pump.

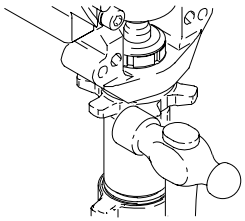


Fig. 14 7673B

Repair

See manual 308798 for pump repair instructions.

Installation

⚠ WARNING

If pin works loose, parts could break off due to force of pumping action. Parts could project through the air and result in serious injury or property damage. Make sure pin and retaining spring are properly installed.

⚠ CAUTION

If the pump jam nut loosens during operation, the threads of the bearing housing will be damaged. Make sure jamnut is properly tightened.

1. Fig. 15. Pull piston rod out 1.5 in. Screw in pump until holes in bearing cross link and piston rod align.

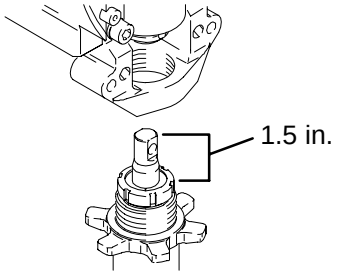


Fig. 15 7676B

2. Fig. 13. Push pin (19) into hole. And push retaining spring into groove all the way around connecting rod.
3. Fig. 16. Screw jam nut down onto pump until stops. Screw pump up into bearing housing until it is stopped by jam nut. Back off pump and jam nut to align pump outlet to back. Tighten jam nut by hand, then tap 1/8 to 1/4 turn with a 20 oz (maximum) hammer to approximately 75 5 ft–lb (102 N·m).

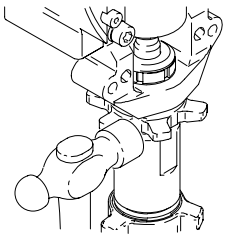


Fig. 16 7673B

4. Fig. 17. Fill packing nut with Graco TSL, through one of the slits, until fluid flows onto the top of seal.

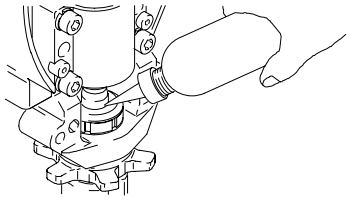
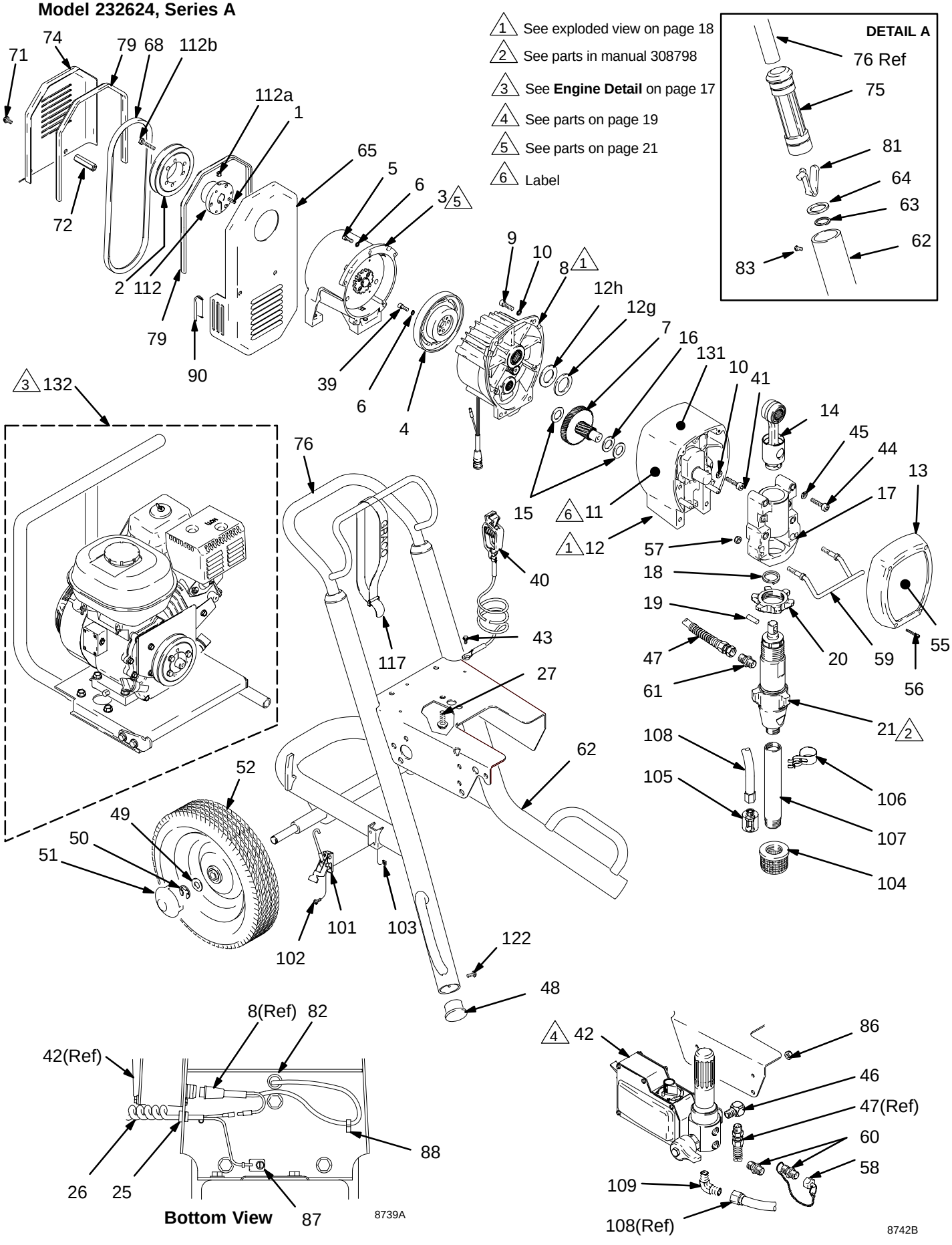


Fig. 17 7677B

Notes

Parts – Basic Sprayer

Model 232624, Series A

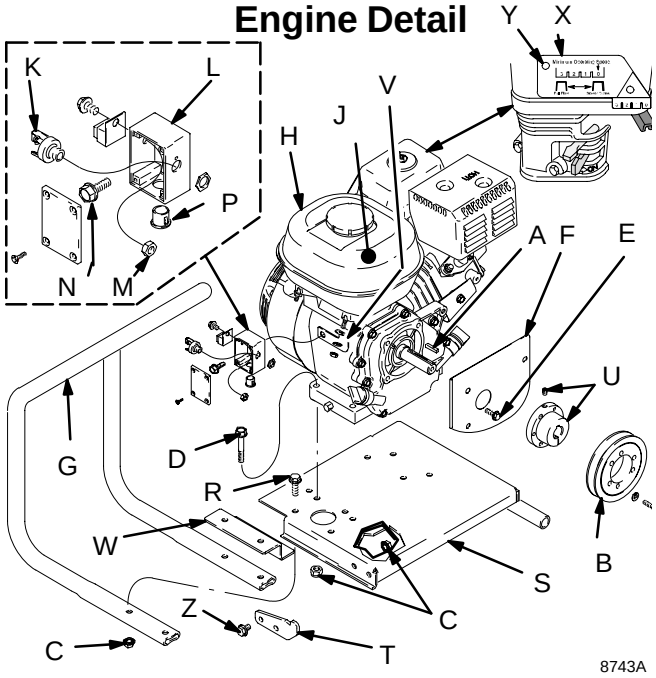


Parts – Basic Sprayer

Ref. No.	Part No.	Description	Qty.
1	183401	KEY, parallel	1
2	193548	PULLEY	1
3	241306	**CLUTCH HOUSING ASSY**	1
4	193553	ROTOR, clutch, 5 in.	1
5	100644	CAPSCREW, sckt hd,, 1/4–20 x 3/4 in.	4
6	105510	LOCKWASHER, spring, 1/4 in.	11
7	241440	GEAR, combination	1
8	241112	**PINION ASSEMBLY;** Parts, page 18	1
9	101864	CAPSCREW, socket head, 1/4–20 x 3/4 in.	4
10	104008	WASHER, lock, spring	4
11▲	194125	LABEL, danger	1
12	241011	**DRIVE HOUSING**	1
13	241308	COVER, HOUSING, DRIVE	1
14	241012	**CONNECTING ROD KIT**	1
15	114672	WASHER, thrust	2
16	114673	WASHER	1
17	241015	**BEARING HOUSING**	1
18	183169	SPRING, retaining	1
19	183210	PIN, straight, 3/8 x1/8 in.	1
20	193031	NUT, retaining	1
21	240291	**PUMP, displacement**; Parts, Manual 308798	1
25	114425	BUSHING, strain relief	1
26	114794	CORD, power, convertible	1
27	112395	SCREW, 3/8–16 x 3/4 in.	3
39	101682	SCREW, cap, sch	4
40	237686	GROUNDING CLAMP & WIRE	1
41	114686	SCREW, cap, sch	2
42		**PRESSURE CONTROL** Parts, page 19	1
43	112798	SCREW, thread forming	1
44	114666	CAPSCREW, socket head,	4
45	106115	LOCKWASHER, spring, 3/8 in.	4
46	155699	ELBOW, street	1
47	222516	FLUID HOSE, 3/8 in. ID, 3/8 npt couplings, 2.5 ft long, spring guards	1 1
48	193682	CAP, end;	2
49	154636	WASHER, 5/8 in.	2
50	101242	RING, retaining	2
51	104811	HUBCAP	2
52	179811	WHEEL, semi–pneumatic	2
56	114818	SCREW, self–tap	4
57	112746	LOCKNUT, 5/16–18	2
58	240131	PLUG, packless	1
59	192719	HANGER, pail	1
60	164672	ADAPTER	2
61	162485	NIPPLE, 3/8–18 npsm(m) x 1/4 npt(m)	1
62	240712	FRAME, cart	1
63	110243	RING, retaining	2
64	183350	WASHER	2
65	241003	GUARD, back	1
68	193547	BELT, 4V	1
71	111801	SCREW, cap, flng hd	4
72	114827	SPACER, hex	2
74	194099	GUARD, belt front	1
75	191084	SLEEVE, cart	2
76	239998	CART HANDLE	1
79	114810	EXTRUSION, trim	2
81	112827	BUTTON, snap	2
82	114809	BUSHING, strain relief	1
83	108795	SCREW, cap, sch	4
86	110838	LOCKNUT, w/nylon insert, 5/16–18	4
87	114391	SCREW, grounding	1
88	114687	CLIP, retainer	1
90	114806	EXTRUSION, gasket	1

Ref. No.	Part No.	Description	Qty.
101	241935	LATCH, adjustable	1
102	110885	SCREW, mach, pnhd, thrd forming	2
103	108947	NUT, square	2
104	187147	STRAINER	1
105	241718	.DEFLECTOR	1
106	194194	CLIP, spring	1
107	193097	TUBE, intake	1
108	194178	HOSE, coupled	1
109	110249	ADAPTER, male elbow, 90°	1
111	206994	THROAT SEAL LIQUID, 8 oz (0.27 liter) (not shown)	1
117	114271	STRAP, retaining	1
122	114984	SCREW, tapping, pnhd, #10 x 1/2 in.	2
131	290228	LABEL, caution	1
132		ENGINE ASSY See **Engine Detail**	1
A	183401	KEY, parallel	1
B	193548	PULLEY	1
C	110996	NUT, flng hd, hex	8
D	114653	SCREW, cap, flng hd	4
E	112406	CAPSCREW, hex hd	2
F	194198	GUARD, lower engine	1
G	194087	HANDLE, slide	1
H	114530	ENGINE, 5.5 HP	1
J▲	194126	LABEL, warning	1
K	114805	JACK, 1/4, motor	1
L	194181	BOX, junction, engine	1
M	114816	NUT, hex	1
N	114813	SCREW, mach, hex washer hd	1
P	109099	BUSHING, snap	1
R	112586	SCREW, cap, hex hd, flanged	2
S	241313	PLATE, mount motor	1
T	194130	BRACKET, clamp	1
U	114959	BUSHING, 3/4 in. (3 bolts, 3 washers)	2
V	194414	BRACKET, J-box	1
W	194925	BRACKET, tension	1
X	192014	PLATE, indicator	1
Y	113084	RIVET, blind (not shown)	2
Z	111800	SCREW, cap, flanged hd	2

Engine Detail



▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

Parts List & Drawing – Pinion Assembly

Ref No. 8 and 12

Ref No. 8: Pinion Housing Assembly 241112

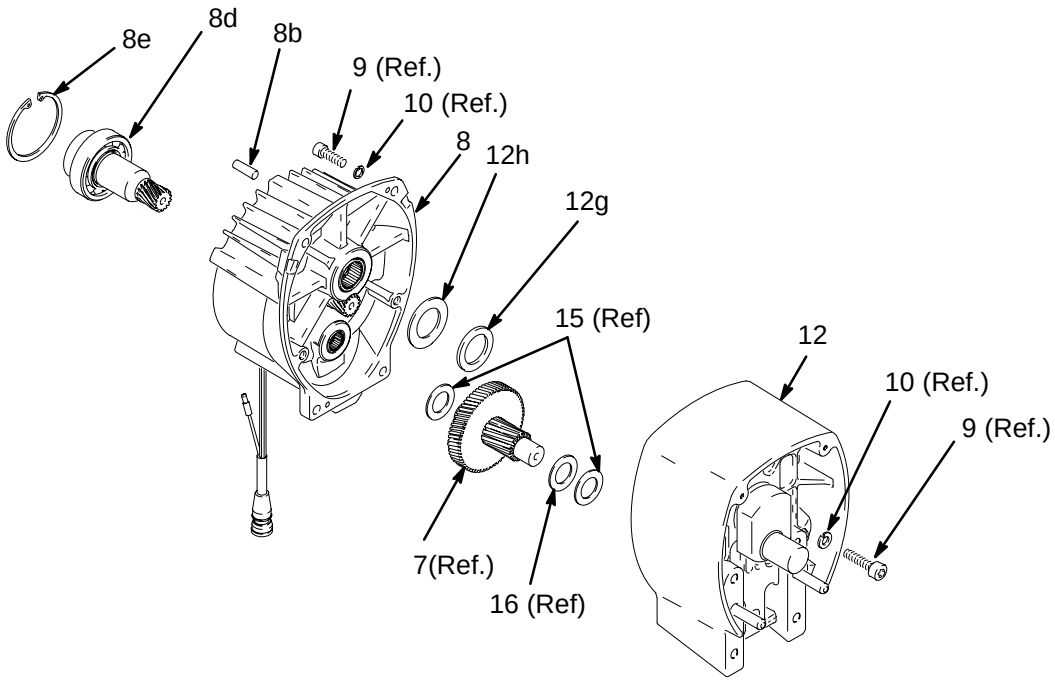
Ref No.	Part No.	Description	Qty
8		PINION HOUSING	1
8b	105489	PIN	2
8d*	193358	PINION SHAFT	1
8e*	112770	RETAINING RING, large	1

**Must be ordered separately*

Ref No. 12: Drive Housing Assembly 241011

Ref No.	Part No.	Description	Qty
12		HOUSING, drive	1
12g*	194173	WASHER	1
12h*	194172	WASHER	1

**Must be ordered separately*

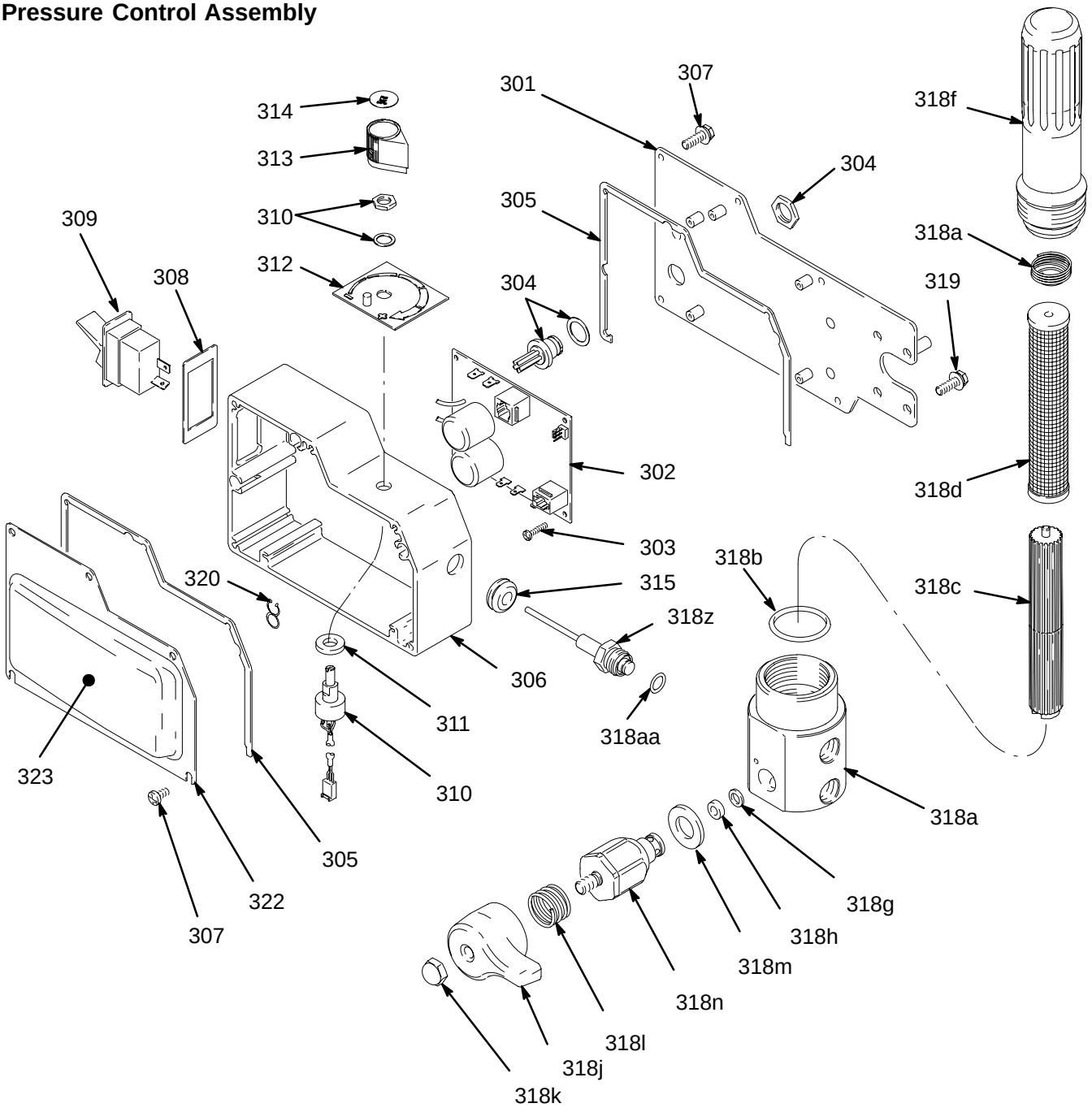


TI0177B

Parts Drawing – Sprayer

Ref No. 42

Pressure Control Assembly



8716A

Parts List – Sprayer

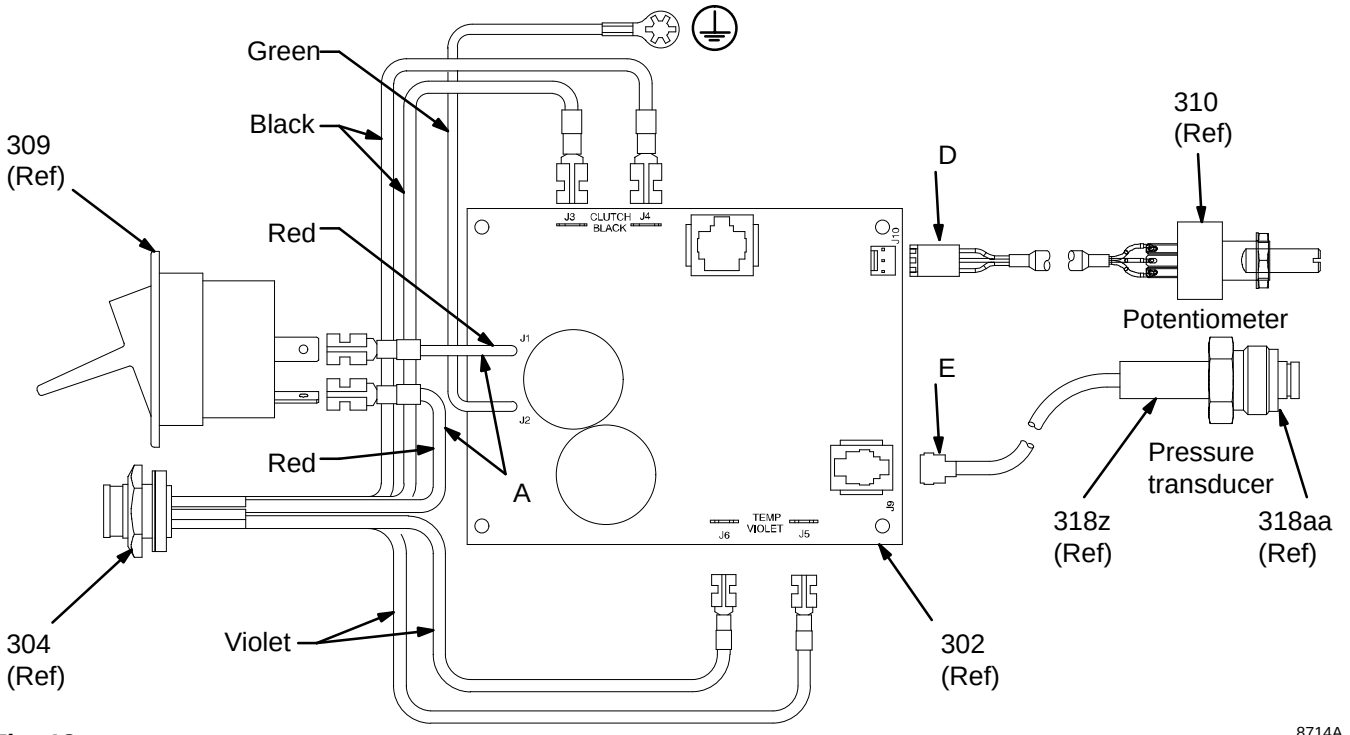
Models 232624

REF NO.	PART NO.	DESCRIPTION	QTY
301	193653	PLATE, control	1
302	**241093**	**BOARD, PC**	**1**
303	111839	SCREW, mch pan, 6–32 x 1/2 in.	5
304	240776	HARNESS, wiring.	1
305	193497	GASKET, control	2
306	193652	HOUSING, control box	1
307	114631	SCREW, mch, pan hd	10
308	193052	PLATE, instruction	1
309	114277	SWITCH, rocker, (spst)	1
310	241443	POTENTIOMETER, pressure control	1
311	193657	GASKET, potentiometer	1
312	193654	PLATE, instruction	1
313	114273	KNOB, potentiometer	1
314	193072	LABEL, control	1
315	114629	GROMMET, transducer	1
318		FILTER, fluid	1
318a	193651	HOUSING, filter	1
318b	104361	O-RING	1
318c	186075	SUPPORT, filter	1
318d	167025	STRAINER, mesh, 60	1
318e	171941	SPRING, compression	1
318f	192706	BOWL, filter	1
318g	193710*	SEAL, valve	1
318h	193709*	SEAT, valve	1
318j	194102*	HANDLE, valve	1
318k	114688*	NUT, cap, hex hd	1
318l	114708*	SPRING, compression	1
318m	114797*	GASKET	1
318n	245103*	VALVE	1
318z	240314	TRANSDUCER, pressure control includes 318aa	1
318aa	111457	O-RING	1
319	110997	SCREW, flange, hex	3
320	114532	TIE, wire, twist	1
321▲	189246	LABEL, warning	1
322	241444	COVER, pressure control	1
323	193684	LABEL, identification	1

* Drain valve replacement kit 245103 available; includes 318g through 318n

▲ Replacement warning labels may be ordered free of charge

Pressure Control Wiring Diagram



8714A

Fig. 18

Parts List & Drawing –Clutch Assembly

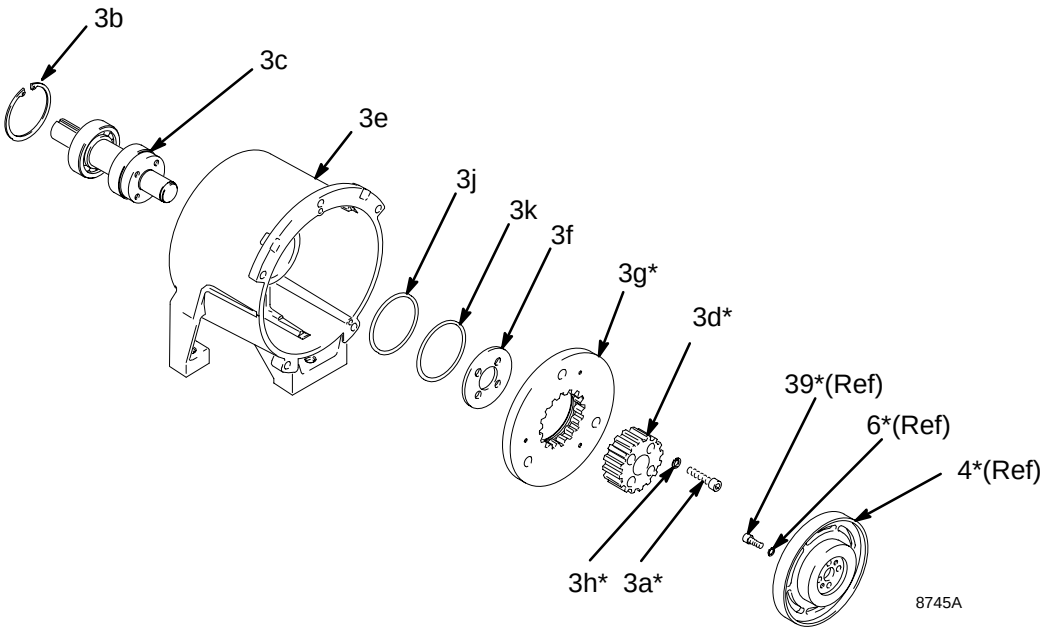
Ref No. 3

Clutch Housing Assembly 241306

Includes 3b, 3c, 3e, 3j and 3k

Ref No.	Part No.	Description	Qty
3a*	108803	SCREW, hex, sch	4
3b	114962	RING, retaining, internal	1
3c	241305	SHAFT, drive, input includes 3b,3j, and 3k	1
3d*	193510	HUB, armature	1
3e	193493	HOUSING, clutch	1
3f	194059	STOP, armature	1
3g*	193681	ARMATURE, clutch	1
3h*	105510	WASHER, lock, spring	8
3j	115078	O-RING	1
3k	115079	O-RING	1

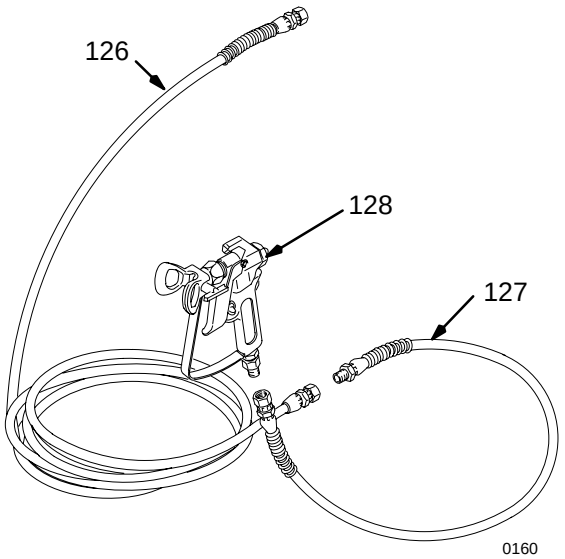
* Clutch replacement kit 241113 includes 3a, 3d, 3g, 3h, 4, 6, 39



Parts – Complete Sprayer

Model 232625
Includes items 125 to 128

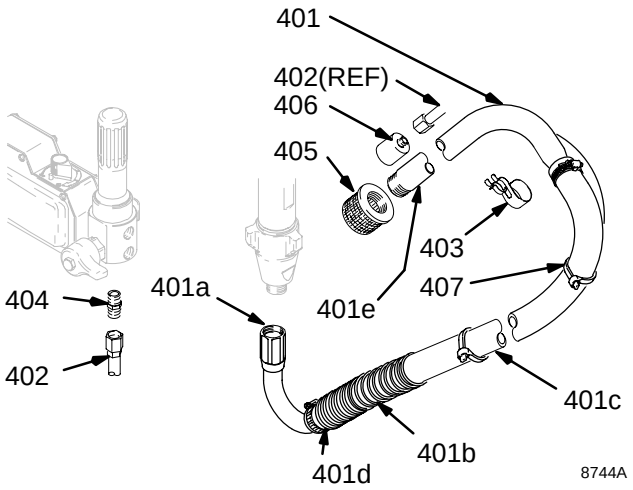
Ref. No.	Part No.	Description	Qty.
125	232624	CONVERTIBLE GMax 5900C Sprayer See parts list on page 16	1
126	240794	HOSE, grounded, nylon; 1/4” ID; cpld 1/4 npsm(fbe); 50 ft (15 m);’ spring guards both ends	1
127	238358	HOSE, grounded, nylon; 3/16” ID; cpld 1/4 npsm(m) x 1/4 npsm(f) swivel; 3 ft (0.9 m); spring guards both ends	1
128	220955	“CONTRACTOR” SPRAY GUN Includes RAC 5™ DripLess™ Tip Guard and 517–size SwitchTip™ See 309091 for parts	1



Parts – Lo-Boy Suction Set Kit

Model 241287
Includes items 401 to 407

Ref. No.	Part No.	Description	Qty.
401	241124	.TUBE, suction, 5 gallon (20 liter) includes 401a through 401e	1
401a	240513	..SWIVEL, tube, inlet	1
401b	176450	..GUARD, hose	1
401c	194306	..HOSE, fluid	1
401d	101818	..CLAMP, hose	2
401e	170957	..TUBE, suction	1
402	194180	.HOSE, drain	1
403	194194	.CLIP, spring	1
404	162453	.NIPPLE	1
405	187147	.STRAINER	1
406	241718	.DEFLECTOR	1
407	144958	.STRAP, tie	1



Technical Data

Honda GX160 Engine
- Power Rating @ 3700 rpm
  - ANSI . . . . . 5.5 Horsepower
  - DIN 6270B/DIN 6271
    - NA . . . . . 2.9 Kw – 4.0 Ps
    - NB . . . . . 3.6 Kw – 4.9 Ps

Maximum Working Pressure . . . . . 3300 psi (227 bar, 22.7 MPa)
Cycles/Gallon (liter) 93 (25)
Maximum Delivery . . . . . 1.25 gpm (4.7 liter/min)
Fuel Tank Capacity . . . . . 0.95 gallons (3.6 liter)
Maximum Tip Size . . . . . 1 gun with 0.041 tip
2 guns with 0.028 tip
Inlet Paint Strainer . . . . . 16 mesh (1190 micron)
Stainless steel screen, reusable
Outlet Paint Filter . . . . . 60 mesh (250 micron)
Stainless steel screen, reusable
Pump inlet Size . . . . . 3/4 npt (m)
Fluid Outlet Size . . . . . 1/4 npsm from fluid filter
Wetted parts . . . . . zinc-plated carbon steel, PTFE, Nylon, polyurethane, UHMW polyethylene, Viton®, Delrin®, leather, aluminum, tungsten carbide,nickle-plated carbon steel, stainless steel, chrome plating

NOTE: Delrin® and Viton® are trademarks of the DuPont Company.

Dimensions

Model 232624

Weight (dry, without packaging) . . . . . 170 lb (77 kg)
Height . . . . . 41 in. (104.1 cm)
Length . . . . . 39 in. (99.1 cm)
Width . . . . . 22 in. (55.9 cm)

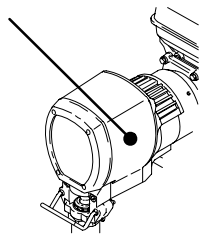
Graco Phone Number

TO PLACE AN ORDER, contact your Graco distributor, or call this number to identify distributor closest to you: **1–800–690–2894 Toll Free**

DANGER LABELS

The English language DANGER label is on your sprayer. If you have painters who do not read English, order one of the following labels to apply to your sprayer. The drawing below shows the best placement of these labels for good visibility.

Order the labels directly from your Graco distributor.



French	**194931**
Spanish	**194932**
German	**194933**
Greek	**194934**
Korean	**194935**
English	**194125**

03497A

Graco Warranty

Graco warrants all equipment listed in this manual which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on date of sale by an authorized Graco distributor to original purchaser for use. With exception of any special extended or limited warranty published by Graco, Graco will, for a period of twelve months from date of sale, repair or replace any part of equipment determined by Graco to be defective. This warranty applies only when equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or improper design, manufacture, installation, operation or maintenance or structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon prepaid return of equipment claimed to be defective to an authorized Graco distributor for verification of claimed defect. If claimed defect is verified, Graco will repair or replace free of charge any defective parts. equipment will be returned to original purchaser transportation prepaid. If inspection of equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include costs of parts, labor, and transportation.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, gas engines, switches, hose, etc.), are subject to warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The parties acknowledge that they have required that present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

ADDITIONAL WARRANTY COVERAGE

Graco does provide extended warranty and wear warranty for products described in "Graco Contractor Equipment Warranty Program".

All written and visual data contained in this document reflects latest product information available at time of publication. Graco reserves right to make changes at any time without notice.

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